

**ABSTRACT OF THE DISCLOSURE**

A method of adapting a downhole multi-phase twin screw pump (10) for use in wells having a high gas content. A first step involves positioning a supplementary liquid channel (22,122) in a housing (12) of the pump in fluid communication with a pumping screw near an intake end (14) of the pump. A second step involves feeding supplementary liquid through the supplementary liquid channel to the pumping screw, thereby enhancing a liquid seal around the pumping screw.